CLAIMS

What is claimed is:

1 1.   A method for verifying shell scripts, the method comprising the computer-

2   implemented steps of:

3   prior to executing a shell script,

4   performing one or more syntactic verification checks on said shell script, wherein

5   said one or more syntactic verification checks verify conformance of said shell

6   script to a set of syntactic guidelines;

7   and,

8   performing one or more semantic verification checks on said shell script, wherein

9   said one or more semantic verification checks verify conformance to a set of

10   semantic guidelines.

1 2.   The method of claim 1, further comprising the step of:

2   prior to executing a shell script,

3   performing one or more coding organizational guideline verification checks,

4   wherein said guideline verification checks verify conformance of said shell script

5   to a set of one or more coding organizational guidelines.

1 3.   The method of Claim 2, further comprising a shell grammar verification mechanism

2   that is responsive to said shell script, wherein said shell grammar verification

3   mechanism comprises a plurality of syntactic verification checks which when invoked

4   perform verification of conformance of said shell script to a plurality of syntactic

5   guidelines for said shell script.

1   4.   The method of Claim 1, further comprising a guideline verifier mechanism that is

2   responsive to said shell script, wherein said guideline verifier mechanism comprises a

3   plurality of semantic verification checks which when invoked perform verification of

4   conformance of said shell script to a plurality of accepted semantic guidelines for said

5   shell script.

1   5.   The method of Claim 4, wherein said guideline verifier mechanism performs a

2   plurality of coding organizational guideline verification checks on said shell script for

3   conformance to a plurality of accepted coding organizational guidelines for said shell

4   script.

1   6.   The method of Claim 3, wherein said shell grammar verification mechanism further

2   comprises:

3   a parser mechanism responsive to said shell script which performs parsing of

4   said shell script;

5   and

6   an error routine mechanism responsive to said shell script which performs

7   error detection and identification for said shell script.

1   7.   The method of Claim 6, wherein said parser mechanism further comprises:

2   a plurality of verification checks which when invoked perform a plurality of one or

3   more verification checks on said shell script in order to verify conformance of

4   said shell script to a plurality of one or more accepted set of grammar rules for

5   said shell.

1   8.   The method of Claim 6, wherein said error routines mechanism further comprises:

2   a plurality of error routines responsive to said shell script which when invoked

3   identify parsing errors and report if parsing has failed in said shell script.

1   9.   The parser mechanism of claim 6 wherein:

2   said parser mechanism performs syntactic verification by breaking a stream of input

3   characters from said shell script into a plurality of tokens;

4   and,

5   said plurality of tokens are further reduced based on a set of grammar rules that are

6   associated with said shell script.

1   10.   The method of claim 6, wherein:

2   said error routines are invoked when said parser mechanism is unable to reduce said

3   plurality of tokens as per the said shell script set of grammar rules.

1   11.   The method of Claim 4, wherein said guideline verification mechanism further

2   comprises:

3   a plurality of support functions responsive to shell script which support a plurality of

4   checks for verification of conformance to a plurality of accepted semantic

5   guidelines and coding organizational guidelines and standards for said shell

6   script;

7   and,

8   a plurality of API functions which perform checks for guideline verification by

9   performing a plurality of checks for verification of conformance to a plurality

10   of accepted semantic guidelines and coding organizational guidelines and

11   standards for said shell script.